

REMARKS

After the foregoing Amendment, Claims 1, 3, 5-27 are currently pending in this application. Claims 19-21 are withdrawn. Claims 2 and 4 have been canceled without prejudice. Claims 1 and 10 are amended. Claims 22-27 are new. Support for the amendments and new claims is found in the specification at least at paragraphs: [0057]; [0060]; [0062]; and [0068]. Applicants submit that no new matter has been introduced into the application by these amendments.

Claim Objections

The Action objected to claim 4 under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 4 has been canceled, rendering this objection moot. The Action also objected to claim 1 because of informalities. Claim 1 has been amended to recite “a carrier and a colorant mixed together and formed into a substantially firm predetermined core shape.” Accordingly, the withdrawal of the objection to claim 1 is respectfully requested.

Claim Rejections - 35 USC § 102

Claims 1, 3-5, 9, 10, 12-14, and 18 were rejected under 35 U.S.C. § 102(e) as being anticipated by Haun (WO/2003/002480). Applicants respectfully traverse this rejection.

Independent claims 1 and 10 have been amended to recite a projectile having “a substantially spherical” core including “a carrier and a colorant mixed together and formed into a substantially firm predetermined core shape,” and “a generally uniform coating bonded to and enveloping the core, the coating conforming to the shape of the core and providing resistance against breakage of the projectile core prior to impact of the projectile core.” Haun fails to disclose or suggest a projectile having these elements, and cannot anticipate or render these claims obvious.

Haun is directed to making ceramic products from fiber glass waste, and contains absolutely no teaching or suggestion of forming a particular projectile having “a substantially spherical” core, as recited by independent claims 1 and 10. The Action states that anything that can be thrown or otherwise propelled is by definition “a projectile.” However, a projectile having a substantially spherical core has aerodynamic advantages over cores of other shapes, especially where accuracy of the projectile is desired. Haun further fails to disclose or suggest a coating bonded to and enveloping the core, the coating “providing resistance against breakage of the projectile core prior to impact of the projectile core.” The Action

points to Haun's generally uniform glaze as the claimed "coating." However, a glaze applied to the ceramic product of Haun would not provide "resistance against breakage of the projective core prior to impact of the projectile core."

Claims 3, 5, 9, 12-14, and 18 are dependent upon claims 1 and 10, and should be allowable over the cited references of record for at least the same reasons discussed above. Accordingly, withdrawal of the § 102(e) rejection of claims 1, 3, 5, 9, 10, 12-14, and 18 is respectfully requested.

Claims 1, 3-7, 9, 10, 12-16, and 18 were rejected under 35 U.S.C. § 102(b) as being anticipated by Legro (US 5,623,781). Applicants respectfully traverse this rejection.

Legro cannot anticipate or render obvious currently amended claims 1 and 10 for the same reasons discussed above. Specifically, Legro fails to disclose or suggest a projectile having "a substantially spherical core including a carrier and a colorant mixed together" and a coating that provides "resistance against breakage of the projectile core prior to impact of the projectile core." The Action states that all elements except for the adhesive or outer layer are considered the "core," and contains a colorant in the form of bentonite. Applicants respectfully disagree with this characterization of the reference, as claims 1 and 10 specifically recite "a substantially spherical core including a carrier and a colorant mixed together." Legro states that its smaller core 1 may be formed from "bentonite granulates that

will dissolve with moisture,” without any discussion of a “carrier” being mixed together with the bentonite granulates. (Col. 3, lines 63-65). The fact that bentonite is known to have a green color does not make it a “colorant,” especially since Legro is silent on mixing bentonite granulates with a carrier to form the core 1. In addition, Legro’s coating 5 is merely used to “give the pill a smooth finish,” (col. 3, lines 40-42), and does not provide “resistance against breakage of the projectile core prior to impact.” (Claims 1 and 10).

Claims 3, 5-7, 9, 12-16, and 18 are dependent upon claims 1 and 10, and should be allowable over the cited references of record for at least the same reasons provided above.

Based on the amendments and arguments presented above, withdrawal of the § 102(b) rejection of claims 1, 3, 5-7, 9, 10, 12-16, and 18 is respectfully requested.

Claim Rejections - 35 USC § 103

Claims 8 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Legro in view of Ishioka et al. (US 5,934,011). Applicants respectfully traverse this rejection.

The combination of Legro and Ishioka et al. fails to disclose or suggest every element of independent claims 1 and 10, which claims 8 and 17 depend from.

Specifically, neither Legro nor Ishioka et al. discloses or suggests a “substantially spherical” core including “a carrier and a colorant mixed together” or a “coating conforming to the shape of the core and providing resistance against breakage of the projectile core prior to impact.” The combination of references further fails to teach or suggest forming the claimed “core” with the carrier being rice straw. Ishioka et al. discloses forming the fibrous substrate of a seedling culture mat from thin pieces of rice straw (col. 2, lines 8-18), not a “substantially spherical core” of a projectile. Ishioka et al. is completely silent on how rice straw used in a mat can be adapted to be used as the inert carrier material of a multi-seed pill with seeds or spores as small as 10-100 μm . (Legro, col. 2, lines 1-6).

Based on the amendments and arguments presented above, withdrawal of the § 103(a) rejection of claims 8 and 17 is respectfully requested.

New Claims

Newly presented claims 22, 24 and 23, 25 are dependent upon independent claims 1 and 10, respectively, and should be allowable over the references of record for at least the reasons discussed above. Newly presented claims 24 and 25 further define the projectile as a paintball. Newly presented claims 22 – 23 and 26 – 27 further define over the references of record, as each of the claims recites the coating enveloping the projectile core comprising a “wax coating,” which is not disclosed or

Applicant: Campo, et al.
Application No.: 10/579,002

suggested by the references of record. This claim element is supported by at least paragraph [0068] of the originally filed specification, which states that the outer coating may be formed from wax compositions. At least one advantage of the projectile of claims 22 – 23 and 26 – 27 is improved resistance to accidental breakage or deformation, as the wax coating is impervious to weather and retains the projectile's uniformity.

Applicant: Campo, et al.
Application No.: 10/579,002

Conclusion

If the Examiner believes that any additional matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including the pending claims, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

John E. Campo, et al.

By /Linda X. Shi/
Linda X. Shi
Registration No. 64,800

Volpe and Koenig, P.C.
30 South 17th Street
Philadelphia, PA 19103
Telephone: (215) 568-6400
Facsimile: (215) 568-6499

LXS/MFS/jal